the first direction when the plurality of 2-D images capturing the movement of the generated surfaces are viewed on the display screen and 4) combinations thereof.

[0027] In other embodiments, the method may further comprise dividing each surface into a number of segments and drawing at least one symbol from the sequence of symbols in each segment where a type of symbol drawn in each segment varies with time. In addition, when the one or more 2-D images are displayed to the display screen, a portion of the number is segments may be viewable on the display screen at any one time and positions of a portion of the number of segments may be used to specify a payline. Further, areas occupied by a portion of the number of segments on the display screen may correspond to active areas of a touch screen sensor coupled to the display screen. Thus, the gaming machine may be capable of altering a movement of a first surface in the 3-D gaming environment when an input signal is generated from an active area on the touch screen sensor above the first surface in one of the 2-D images.

[0028] In yet other embodiments, the method may comprise receiving an input signal from a first input device on the gaming machine indicating a stop command has been received where the stop command is a request to stop a progression of symbols on one of the virtual reel strips viewed on the display screen and determining a new sequence of symbols to display from the virtual reel strip wherein the new sequence of symbols allows the final state of the virtual reel strip to be displayed sooner than when the stop command is not received. In addition, the method may further comprise: 1) determining the award of indicia of credit using the one or more randomly selected indices wherein the gaming machine is capable of the award of the indicia of credit via the output device, 2) rendering a bonus game presentation in the 3-D gaming environment and capturing the bonus game presentation on the one or more two-dimensional images and 3) receiving an input signal from a first input device coupled to the gaming machine to initiate one or more games of chance.

[0029] In yet other embodiments, the sequence of symbols to display from the virtual reel strip may be determined such that the sequence progresses through the virtual reel strip towards an end of the virtual reel strip. When the end of the virtual reel strip is reached in the sequence and more symbols are required for the sequence, a next symbol in the sequence may be selected from symbols near a beginning of the virtual reel strip and the sequence again progresses through the virtual reel strip towards the end of the virtual reel strip. Further, the method may comprise displaying the final state for a plurality of virtual reel strips in a first game of chance; storing the final state of each of the virtual reel strips; for a second game of chance following the first game of chance, determining the sequence of the symbols to display from the virtual reels strips where the final states from the plurality of virtual reel strips from the first game of chance are initial states of the sequence of symbols for the second game of chance.

[0030] Another aspect of the present invention provides a virtual reel model for a 3-D gaming environment on a gaming machine where the gaming machine is capable of receiving indicia of credit for a wager for a game of chance from an input device coupled to the gaming machine and outputting indicia of credit from an output device coupled to the gaming machine. The virtual reel model may be generally characterized as comprising: 1) a geometry definition of a reel model for the 3-D gaming environment; 2) a first input parameter for specifying a total number of segments on the reel model where a symbol is drawn on each segment of the reel model in the 3-D gaming environment; 3) a second input parameter for specifying an index of a home segment on the reel model where the index of the home segment is used to specify a starting location for a first payline that the gaming machine is capable of drawing in the 3-D gaming environment; and 4) a third input parameter for specifying a number of visible segments wherein the visible segments are the number of segments above the home segment that are visible on a display screen on the gaming machine when 2-D images are rendered from the 3-D gaming environment comprising the reel model. The rendered 2-D images may be used as part of a game outcome presentation or a bonus game outcome presentation for the game of chance viewed on the gaming machine.

[0031] In particular embodiment, the geometry definition of the reel model may be for one of a flat strip or a curved strip. In addition, the virtual reel model may further comprise: i) a fourth input parameter for specifying a number of touchable segments wherein the number of touchable segments specify active areas of a touch screen sensor coupled to the display screen that correspond to segment areas on 2-D images that are displayed to the display screen of the virtual reel model rendered from the virtual reel model generated in the 3-D gaming environment, ii) a fifth input parameter for specifying a number of different types of symbols that are drawn on each symbol or iii) a plurality of motion parameters for specifying a movement of the reel model over time in the 3-D gaming environment. The plurality of motion parameters may be used to define one or more of a) a cock-up movement of the reel model in the 3-D gaming environment, b) a cock-down movement of the reel model in the 3-D gaming environment, c) a bounce-down movement of the reel model in the 3-D gaming environment, d) a bounce-up movement of the reel model in the 3-D gaming environment, e) a stop position of the reel model in the 3-D gaming environment, and f) a velocity as a function of time of the reel model in the 3-D gaming environment and g) a path of the reel model in the 3-D gaming environment as a function of time.

[0032] Yet another aspect of the present invention provides a gaming machine. The gaming machine may be generally characterized as comprising: 1) a housing; 2) a master gaming controller designed or configured to control a game of chance played on the gaming machine and to execute game logic mounted within the housing; 3) an input device coupled to the housing capable of receiving indicia of credit for wagers on the game of chance; 4) an output device coupled to the housing capable of outputting indicia of credit from the gaming machine; 5) a memory device coupled to the housing for storing information used to generate a 3-D gaming environment comprising one or more virtual slot reels; 6) game logic executed on the gaming machine for rendering one or more two-dimensional images derived from the 3-D gaming environment; and 7) one or more display devices for displaying a game outcome presentation for the game of chance comprising said rendered one or more two-dimensional images. The game of chance may be a video slot game.